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ABSTRACT

A detailed description is provided of the variable utilization of curriculum resources (UCR), which is part of the analysis in phase I of the Evaluation of Practices in Individualized Schooling. The variable is defined: the questionnaires on which the variable is based are listed: the procedures used tc scale the variable are explained: the distribution of the variable in the 156 individually guided education (IGE) schools which participated in phase I is described: and the internal consistency of the variable is reported. (Author/MH)

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Technical Report No. 485

PROCEDURES USED IN PHASE I OF THE IGE EVALUATION TO SCALE THE VARIABLE UTILIZATION OF CURRICULUM RESOURCES

by Gary G. Price, Terence C. Janicki, Judith A. Howard, Deborah M. Stewart, Anne E. Buchanan, and Thomas A. Romberg

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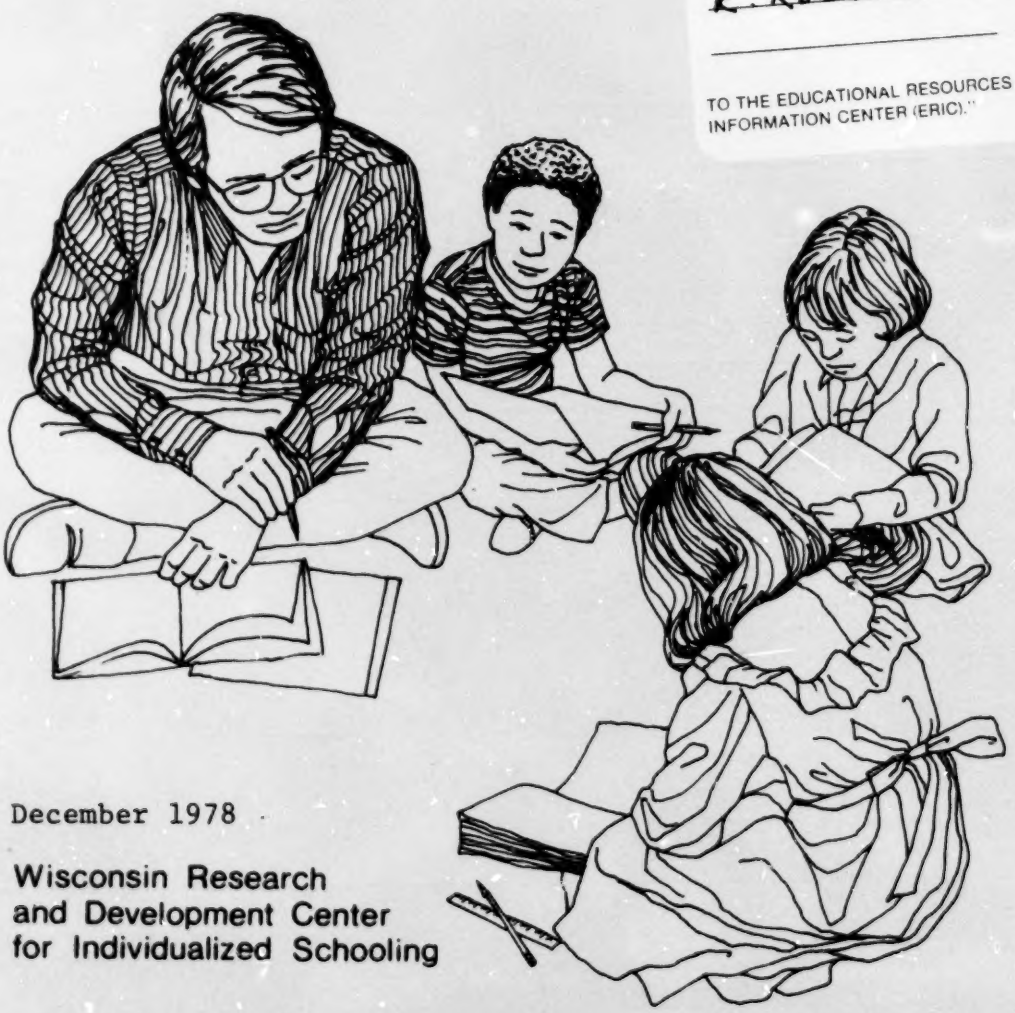

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for Individualized Schooling
The University of Wisconsin
Madison, Wisconsin

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- providing assistance to educators which helps transfer the outcomes of research and development to improved practice in local schools and teacher education institutions

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Table of Contents

Page

List of Tables vii

List of Figures. vii

Abstract ix

Verbal Definition of the Variable. 1

Explanation of Variable-naming Conventions 2

Scaling Procedures 7

- Setting Instructional Objectives. 8
- IPM-compatible Materials. 10
- Utilization of Math Curriculum Resources (zUCRMATH) 12
- Utilization of Reading Curriculum Resources (zUCRREAD). . . . 12

Distribution and Internal Consistencies of the Scaled Composites. 12

Appendices

A. Item Pool Selected. 21

B. SPSS Commands for UCR 27

List of Tables

Table		Page
1	Instrument Identification	3
2	Distribution of the Scaled Composites	13
3	Internal Consistencies of the Scaled Composites and Their Constituents.	18

List of Figures

Figure		Page
1	UCR	6
2	Utilization of Curriculum Resources (Second Grade Mathematics).	14
3	Utilization of Curriculum Resources (Fifth Grade Mathematics).	15
4	Utilization of Curriculum Resources (Second Grade Reading).	16
5	Utilization of Curriculum Resources (Fifth Grade Reading).	17

Abstract

This report provides a specific discussion of a variable that is part of the analysis in Phase I of the Evaluation of Practices in Individualized Schooling. The name of the variable is Utilization of Curriculum Resources (UCR). Included in this discussion is a verbal definition of the variable, a list of the questionnaire items on which the variable is based, a technical explanation of the procedures used to scale the variable, a description of the distribution of the variable in the 156 schools that participated in the Phase I study, and the internal consistency of the variable. Most readers would find it useful to read Technical Report No. 475, Overview of School and Unit Variables and their Structural Relations in Phase I of the IGE Evaluation, before beginning this one.

Procedures Used in Phase I of the IGE Evaluation to Scale the Variable

This Technical Report provides a detailed description of the variable, Utilization of Curriculum Resources (UCR). The description includes a verbal definition of the variable, a list of the questionnaire items on which the variable was based, and a technical explanation of the procedures used to scale the variable. The report also contains a description of the distribution and the internal consistency of the variable. This variable, among others, is part of the analysis in Phase I of the Evaluation of Practices in Individualized Schooling. Phase I, which is a study of 156 Individually Guided Education (IGE) schools, is the large sample part of the overall evaluation effort. Further explanation of the Phase I study and an explanation of the relationship of this variable to the Phase I analysis is given in Technical Report No. 475, Overview of School and Unit Variables and their Structural Relations in Phase I of the IGE Evaluation.

Verbal Definition of the Variable

Utilization of Curriculum Resources (UCR), by subject area, is a measure of the extent to which a variety of IPM-compatible curricular materials and media are being used in a particular subject area. Assessments of IPM-compatibility are based partly on the source from which the I&R unit obtained different subject matter objectives.

Explanation of Variable-naming Conventions

This measure, like most of the variables used in Phase I of the IGE evaluation, is a composite of items taken from several different instruments. The names and identification numbers of the respective instruments are given in Table 1, along with other information. The instruments numbered 11, 17, 51, 52, and 53 were given to all staff members[1] of each school studied, and were to be filled out individually. One copy of Instruments 22, 25, and 26 was given to each of the I&R units[2] studied (two I&R units from each school, one that included second grade students and one that included fifth grade students). These instruments were filled out by the unit as a group, after they reached consensus. Instruments 23 and 24 were given to teachers of the I&R units studied and they filled them out individually. One copy of Instruments 16 and 21 was given to the IIC of each school, and was filled out by the IIC as a group. Instrument 13, a questionnaire about the entire school, was filled out by the principal of the school.

In order to keep track of information collected from different sources, it was necessary to develop some complex conventions for naming variables. Those conventions are explained here. The abbreviated name of each item and each variable contains eight or fewer

---

[1] Includes all professional personnel (i.e., not aides) assigned at least one-third time to the building in both the 1976-7 and 1977-8 school years.

[2] Includes all professional personnel (i.e., not aides) assigned at least one-third time to the I&R unit in both the 1976-7 and 1977-8 school years and directly involved in planning instruction for the unit students in reading, math, or language arts.

Table 1

Instrument Identification

Test booklet	Instrument	Instrument number	File	Respondent
General staff questionnaire	IGE implementation survey	11	H	School staff members
	Staff background	17	H	School staff members
	Assumptions regarding conditions of schooling	51	H	School staff members
	Job satisfaction survey	52	H	School staff members
	Assumptions regarding learning and knowledge	53	H	School staff members
Unit staff questionnaire	I&R structure and function	22	A,B	Unit as a group
	Record keeping and regrouping	25	A,B	Unit as a group
	Instructional time and objectives	26	A,B	Unit as a group
	Role of staff teacher	23	F,G	All unit teachers
	Instructional practices	24	F,G	All unit teachers
IIC questionnaire	IIC structure and function	21	C	IIC as a group
	Demographic background	16	C	IIC as a group
IGE schools questionnaire	IGE schools questionnaire	13	C	Principal

characters, in order to be readable by computer. The first character of each item and variable name is a letter that indicates the case for whom the item or variable is a measure. In this discussion, variables include information from two or more questionnaire items or transformed information from one item. Items coming from a common source (i.e., the same respondents) were collected into a common data file whose name corresponds to the first letter in the names of all items collected in it. There were six such files. Those files, described in terms of the cases to which they pertain and in terms of their respective alphabetic codes, are:

A I&R units containing 2nd grade students (the I&R unit as a case).

B I&R units containing 5th grade students (the I&R unit as a case).

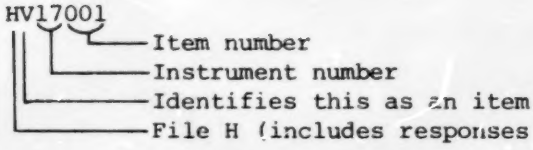
C The entire school as a case.

F Individual teachers of I&R units containing 2nd grade students.

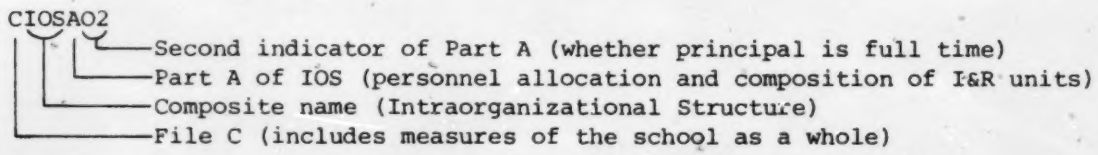
G Individual teachers of I&R units containing 5th grade students.

H Individual staff members employed by the school.

Item names. The second character in all item names is the letter "V," which distinguishes item names from names of other variables. The third and fourth characters in item names denote the number of the instrument of which the item is a part (see Table 1). The fifth, sixth, and seventh, and in some cases, eighth characters in item names contain the identification number of the item within the instrument. For example, Item number 1 from the Staff Background Questionnaire (Instrument 17), which was given to all members of the school staff, is named as follows:



Variable names. Variable names, like item names, begin with an alphabetic code that indicates the cases to which they pertain. Following that first character is an abbreviation of two to four characters used by the evaluation staff to denote the major composite of which the variable is a constituent. Subsequent characters identify the position of the variable in the scaling operation, as diagrammed in Figure 1. For example, one of the constituents of the Intraorganizational Structure composite (IOS) is named as follows:


CIOSAO2
Second indicator of Part A (whether principal is full time)
Part A of IOS (personnel allocation and composition of I&R units)
Composite name (Intraorganizational Structure)
File C (includes measures of the school as a whole)

Some of the composites are measures of the school as a whole, whereas others are specific to both the I&R unit (2nd or 5th grade) and the subject area (math or reading). Composites that pertain to the school as a whole are: Interorganizational Relations (IOR), Procedures Fostering Coordination and Improvement of the School Program (GOSB), General Staff Background (GSB), Intraorganizational Structure (IOS), Belief in Individual Differences (INDIV), View of Learning: Constructivism vs. Behaviorism (CVSB), the School's Demographic Setting (DB), General Implementation of the Instructional Programming Model (GOSA), and Teacher Job Satisfaction (JOBSAT).

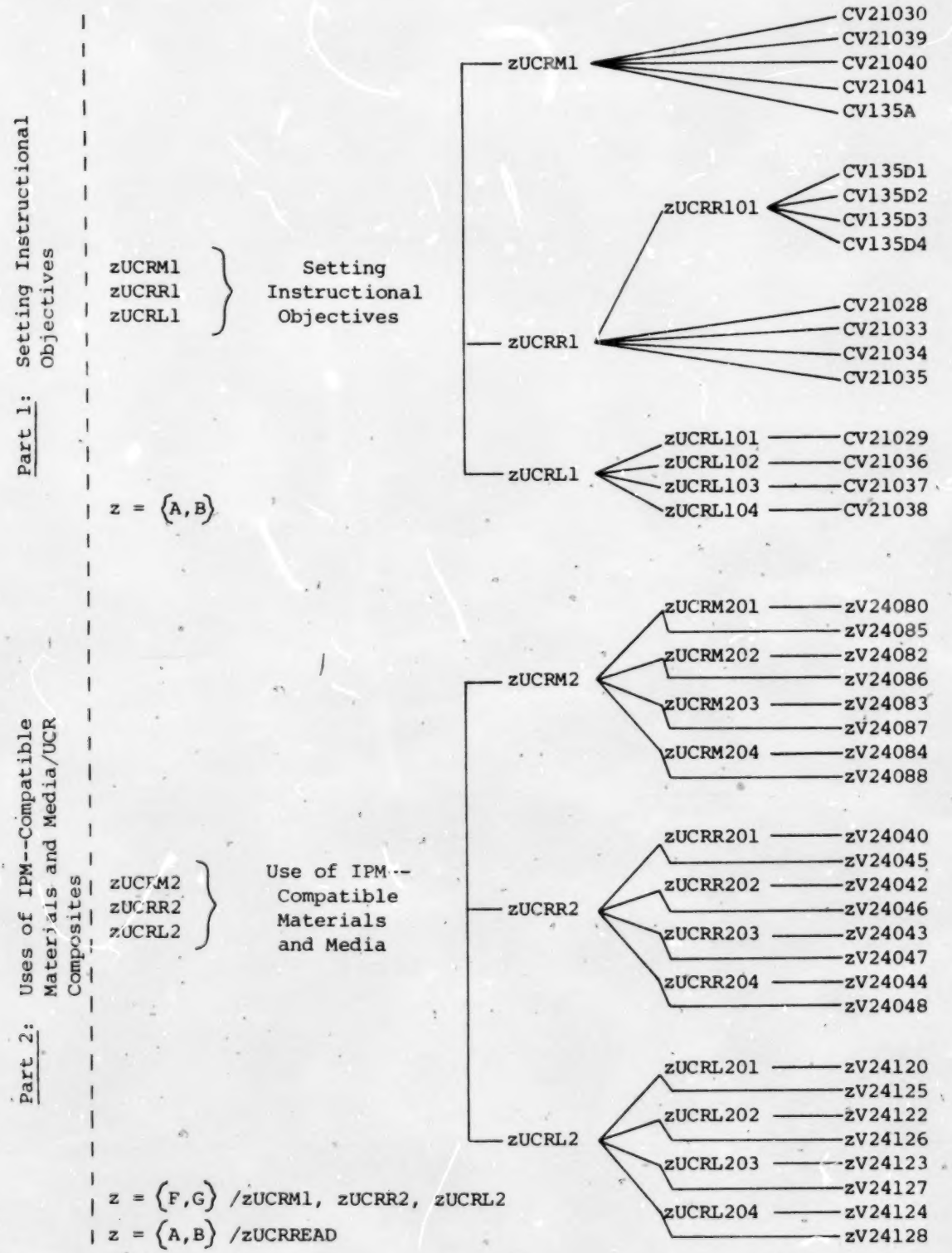

Part 1: Setting Instructional Objectives
zUCRM1
zUCRR1
zUCRL1
Setting Instructional Objectives
z = (A,B)
zUCRM1
CV21030
CV21039
CV21040
CV21041
CV135A
zUCRR1
zUCRR101
CV135D1
CV135D2
CV135D3
CV135D4
CV21028
CV21033
CV21034
CV21035
zUCRL1
zUCRL101
CV21029
zUCRL102
CV21036
zUCRL103
CV21037
zUCRL104
CV21038
Part 2: Uses of IPM--Compatible Materials and Media/UCR Composites
zUCRM2
zUCRR2
zUCRL2
Use of IPM -- Compatible Materials and Media
z = (F,G) /zUCRM1, zUCRR2, zUCRL2
z = (A,B) /zUCRREAD
zUCRM2
zUCRM201
zV24080
zV24085
zUCRM202
zV24082
zV24086
zUCRM203
zV24083
zV24087
zUCRM204
zV24084
zV24088
zUCRR2
zUCRR201
zV24040
zV24045
zUCRR202
zV24042
zV24046
zUCRR203
zV24043
zV24047
zUCRR204
zV24044
zV24048
zUCRL2
zUCRL201
zV24120
zV24125
zUCRL202
zV24122
zV24126
zUCRL203
zV24123
zV24127
zUCRL204
zV24124
zV24128

Figure 1. UCR.

Composites that are specific to I&R unit and subject area are: Utilization of Curriculum Resources (UCR), Information Acquisition (IA), Individualization of Instructional Decisions (IDM), Management of Grouping and of Instructional Continuity (IE), Allocated Learning Time (ALT), and measures of student achievement. In the technical explanations of scaling, composites specific to the 2nd grade I&R unit begin with the letter "A"; composites specific to the 5th grade I&R unit begin with the letter "B." For brevity, a lower case "z" is used as the first letter wherever the explanation of scaling applies to both the 2nd and 5th grade I&R units.

Scaling Procedures

UCR is a composite of two parts. Part one, zUCRM1, zUCRR1, and zUCRL1, includes setting instructional objectives, and part two, zUCRM2, zUCRR2, and zUCRL2, is the use of IPM-compatible materials and media. Additionally, UCR is assessed separately by subject area. Thus, each of the two parts is made of three smaller segments, one each for math, reading, and language arts. Figure 1 (see page 6) shows the scaling operations for UCR. Figure 1 is a schematic portrayal of these scaling operations; it does not represent the actual numerical operations. Appendix A includes the items used to measure UCR, and Appendix B includes the Statistical Package for the Social Sciences (SPSS) commands necessary to construct the variable from the data files.

Setting Instructional Objectives

Setting math instructional objectives (zUCRM1). zUCRM1 is assigned values according to the pattern of responses made by IIC members to several items. zUCRM1 is created in both Files A and B. The items include: CV21030, presence of school-wide math objectives; CV21039, objectives from a published curriculum; CV21040, objectives from an objective book; CV21041, locally developed objectives; and CV1353, use of the Developing Mathematical Processes package. zUCRM1 is assigned a one if the school does not use DMP but does have math objectives, and a zero if it has neither DMP nor math objectives. zUCRM1 is assigned a two if the school does not use DMP but does have objectives and uses objectives from all three sources, with some adaptation. zUCRM1 is also assigned a two if the school does use DMP, and does have objectives, but these are not taken from a published curriculum. zUCRM1 is assigned a maximum value of three if the school uses DMP and does have objectives which are taken from a published curriculum, with some adaptation.

Setting reading instructional objectives (zUCRR1). zUCRR1 is constructed in two parts. Curriculum products, zUCRR101, is formed by the pattern of the principal's response to : CV135D1, use of Word Attack; CV135D2, use of Study Skills; CV135D3, comprehension; and CV135D4, use of Self-Directed, Interpretive, and Creative Reading. (CV135D1 to CV135D4 are all components of the Wisconsin Design.) If the unit uses no Wisconsin Research & Development products, the

assigned value is zero. If the school uses Word Attack, the value of zUCRR101 is one. In addition, if the school does not use Word Attack, but does use one of the three other products, and the unit is the fifth grade level, zUCRR101 is assigned a one. If the school uses Word Attack and at least one other product, zUCRR101 is assigned a two.

CV21033 (objectives from a published curriculum) is rescaled so that responses of "zero" or "two" ("taken directly" or "not at all," respectively) are given a zero, and responses of one ("with adaptation") are left unchanged. This rescaled variable is called zUCRR102. Then zUCRR1 is assigned values according to the pattern of responses to zUCRR101, CV21028, presence of school-wide reading objectives; zUCRR102, CV21034, objectives from an objective book; and CV21035, locally developed objectives. Responses to CV21028, CV21033, CV21034, and CV21035 are made by the IIC. If zUCRR101 is zero, but the school has reading objectives, zUCRR1 is assigned a value of one. If ZUCRR101 is zero, but the school does have objectives and they are obtained from all three sources with some adaptation, zUCRR1 is assigned a value of two. Then if zUCRR101 has values of one or two, and the school has reading objectives, the values of zUCRR101 are a simple sum of the values of zUCRR101, CV21028, and zUCRR102. The range of values of zUCRR1 is then rescaled from zero to three.

Setting language arts instructional objectives (zUCRL1). zUCRL1 is a sum of responses made by the IIC to the following items: CV21029, presence of language arts objectives; CV21036, objectives from a published curriculum; CV21037, objectives from an objective book; and CV21038, locally developed objectives. Prior to the addition opera-

tion, each item is rescaled so that responses of zero or two (no use of objectives at all or entirely from a given source) are given a zero, and responses of one (use of objectives with adaptation) are given a one. The use of objectives from various sources without any adaptation is thought to reflect a lack of attention to ensuring that the objectives are compatible with immediate school programs. The final range of scores on zUCRL1 is rescaled to from zero to three.

IPM-compatible Materials

Operations to measure IPM-compatible materials in each subject area take place in Files F and G, with the unit teacher as case. When operations are complete, the unit mean on zUCRM2, zUCRR2, and zUCRL2 are added to Files A and B, where zUCRM1, zUCRR1, and zUCRL1 are stored.

Use of IPM-compatible math materials (zUCRM2). zUCRM2 is a measure of responses made by unit teachers to items zV24080, zV24082, zV24083, and zV24084. These items assess the number of types of reading materials, audiovisual materials, manipulative materials, and media situations, respectively, which are used in the math curriculum. Each item is truncated so that three or more types are assigned a value of three. Then each item is multiplied by the percentage of the learner's math instructional time spent using the respective materials or media type, which are measured by the following items: zV24085, reading; zV24086, audio-visual; zV24087, manipulative; and zV24038, media. The sum of each measure of materials variety, weighted by percentage of time used, is the unit teacher's score on zUCRM2.

Use of IPM-compatible reading materials (zUCRR2). zUCRR2 is a measure of responses made by unit teachers to items zV24040, zV24042, zV24043, and zV24044. These items assess the number of types of reading materials, audio-visual materials, manipulative materials, and media situations, respectively, which are used in the reading curriculum. Each item is truncated so that three or more types are assigned a value of three. Then each item is multiplied by the percentage of the learner's reading instructional time spent using the respective materials or media type, which are measured by the following items: zV24045, reading; zV24046, audio-visual; zV24047, manipulatives; and zV24048, media. The sum of each measure of materials variety, weighted by percentage of time used, is the unit teacher's score on zUCRR2.

Use of IPM-compatible language arts materials (zUCRL2). zUCRL2 is a measure of responses made by unit teachers to items zV24120, zV24122, zV24123, and zV24124. These items assess the number of types of reading materials, audio-visual materials, manipulative materials, and media situations, respectively, which are used in the language arts curriculum. Each item is truncated so that three or more types are assigned a value of three. Then each item is multiplied by the percentage of the learner's language arts instructional time spent using the respective materials or media type, which are measured by the following items: zV24125, reading; zV24126, audio visual; zV24127, manipulatives; and zV24128, media. The sum of each measure of materials variety, weighted by percentages of time used, is the unit teacher's score on zUCRL2.

Utilization of Math Curriculum Resources (zUCRMATH)

The composite variable of utilization of curriculum resources in math (zUCRMATH) is a sum of zUCRM1 plus zUCRM2, in which both constituents are given equal weight.

Utilization of Reading Curriculum Resources (zUCRREAD)

The composite variable of utilization of curriculum resources in reading (zUCRREAD) is a weighted sum of zUCRR1 plus zUCRR2, a reading section, and zUCRL1 plus zUCRL2, a language arts section. At grade two, the reading segment is weighted twice as heavily as the language arts segment. At grade five, where verbal facility is believed to be as important as reading skills, each segment is accorded equal weight. If a school does not have language arts per se, the score for zUCRREAD in both units two and five would be equal to twice the sum of ZUCRR1 plus zUCRR2.

Distribution and Internal Consistencies of the Scaled Composites

The summary statistics for UCR generated from the 156 schools in the Phase I sample are included in Table 2. Histograms for the scaled composites are included in Figures 2, 3, 4, and 5. The internal consistencies (Cronbach's α's) are given in Table 3.

Table 2

Distribution of the Scaled Composites

Composite	Mean	SD	Median	Actual minimum	Logical minimum	Actual maximum	Logical maximum
AUCRMATH	39.528	9.611	39.500	11.944	0	60.000	60.00
AUCRREAD	44.845	9.587	46.453	22.0	0	60.00	60.00
BUCRMATH	40.148	9.530	40.000	12.00	0	60.0	60.0
BUCRREAD	44.770	9.89	44.667	19.910	0	60.00	60

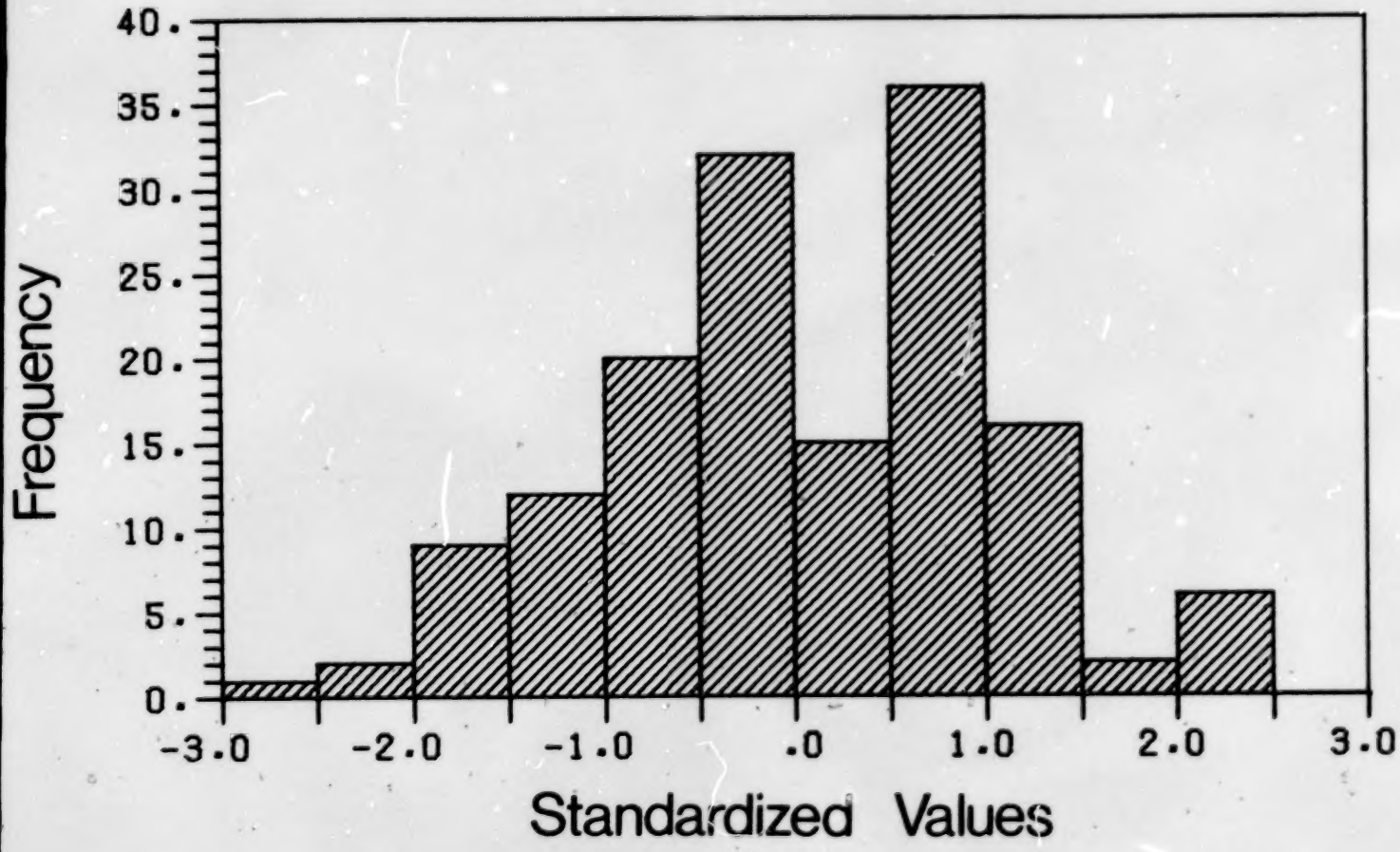


Figure 2. Utilization of Curriculum Resources (Second Grade Mathematics).

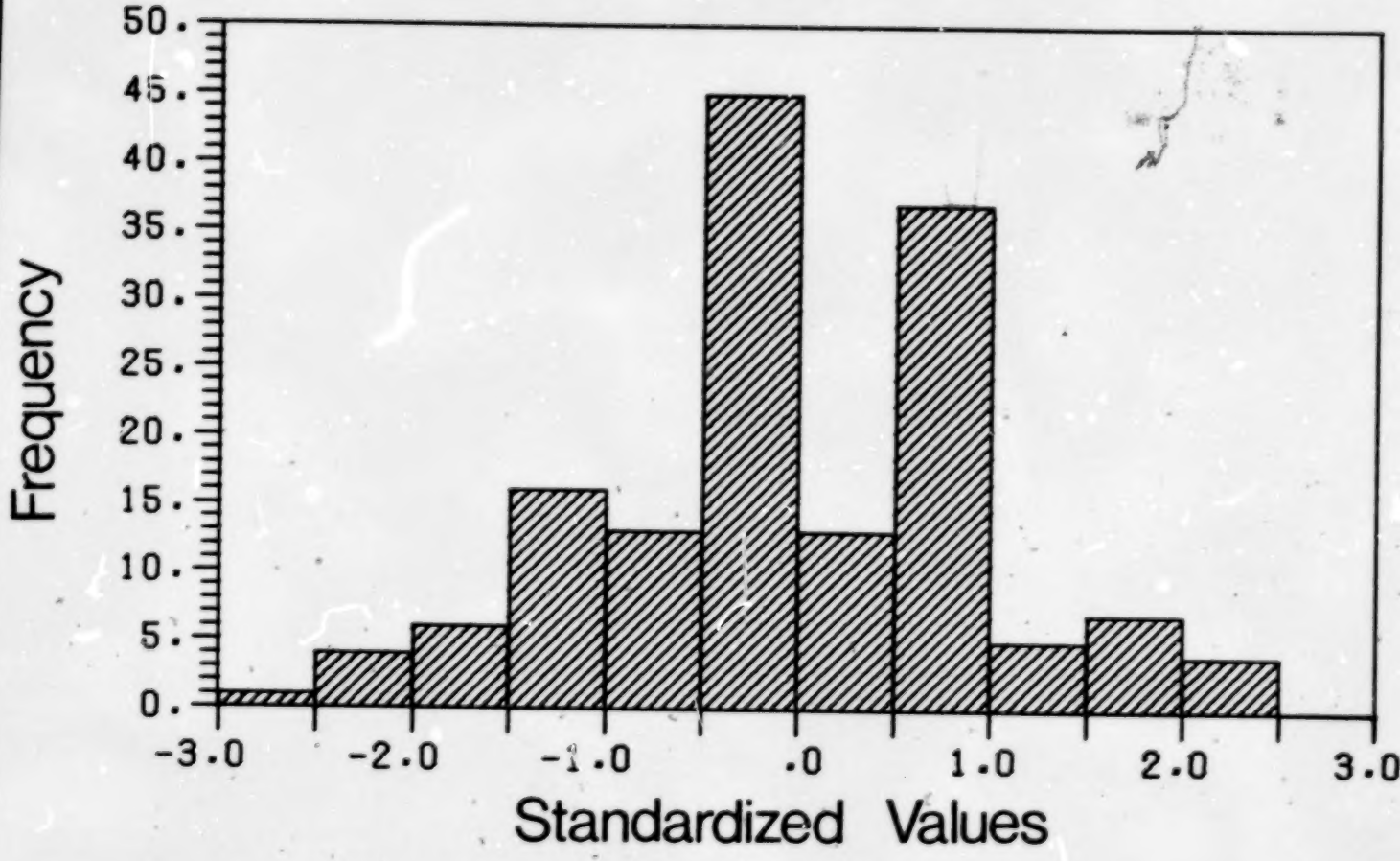


Figure 3. Utilization of Curriculum Resources (Fifth Grade Mathematics).

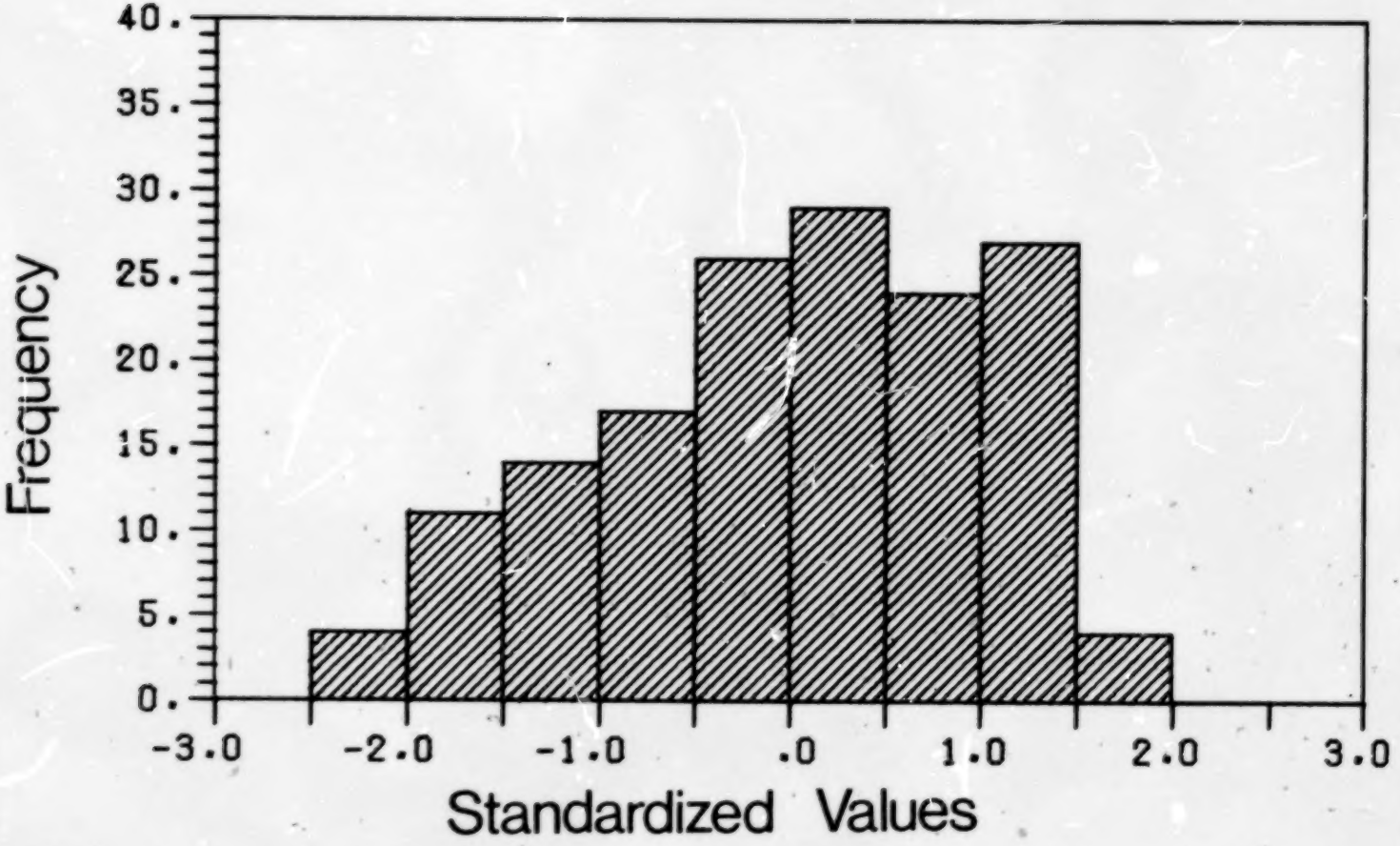


Figure 4. Utilization of Curriculum Resources (Second Grade Reading).

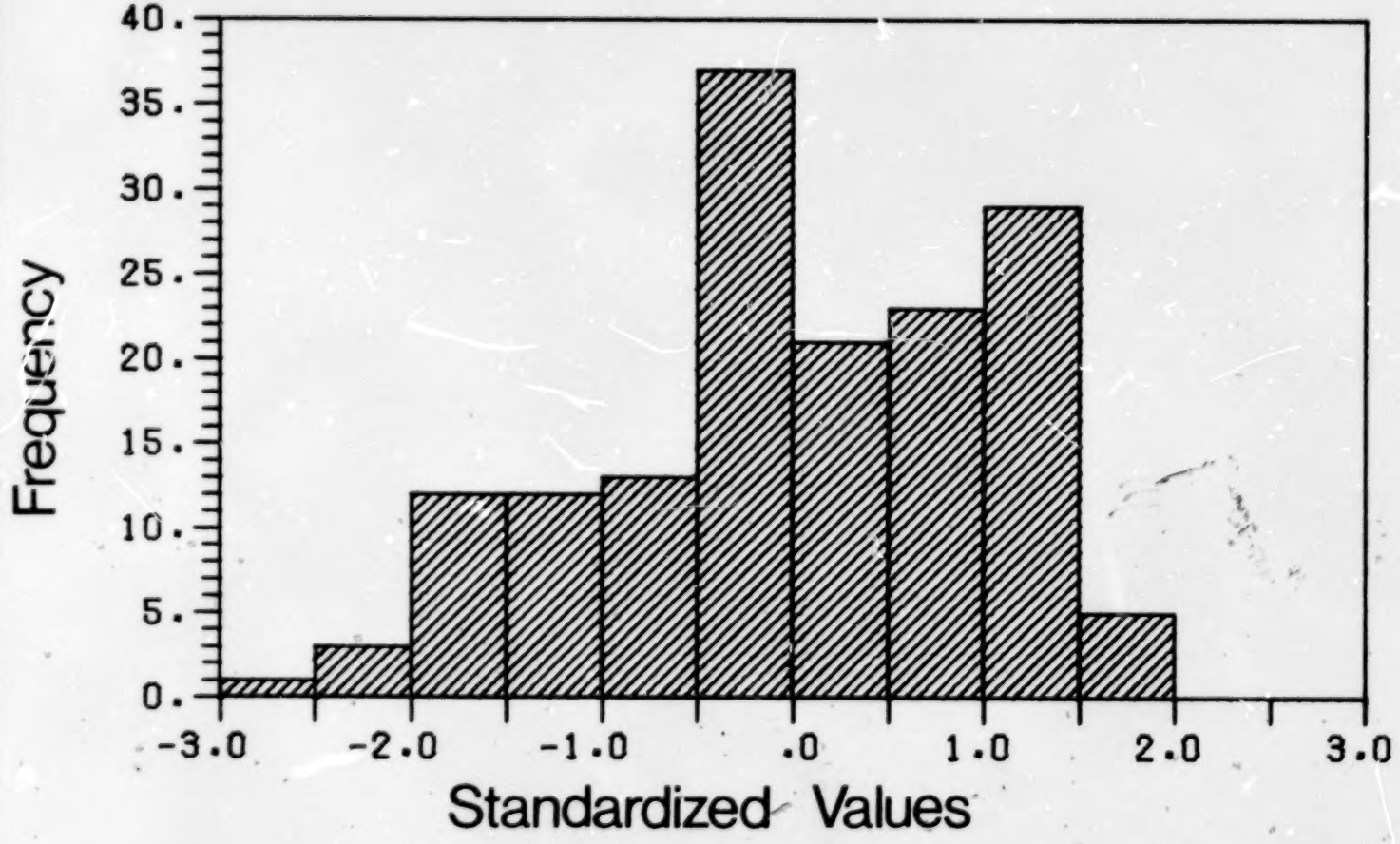


Figure 5. Utilization of Curriculum Resources (Fifth Grade Reading).

Table 3

Internal Consistencies of the

Scaled Composites and Their Constituents

Variable		α
Composite:	AUCRMATH	.29
Constituents:	AUCRM1	.43
	AUCRM2	.03
Composite:	AUCRREAD	.30
Constituents:	AUCRR1	.27
	AUCRR2	.29
	AUCRL1	.84
	AUCRL2	.17
Composite:	BUCRMATH	.20
Constituents:	BUCRM1	.03
	BUCRM2	.19
Composite:	BUCRREAD	.35
Constituents:	BUCRR1	.27
	BUCRR2	.36
	BUCRL1	.84
	BUCRL2	.19

The relation of internal consistency to reliability in general and to validity can be difficult to understand. A composite whose constituents have high internal consistency may or may not possess high test-retest reliability. Conversely, a composite that has high test-retest reliability may have low internal consistency. Any composite that measures a homogeneous construct should rightfully be expected to have high internal consistency, but a composite that measures a construct which combines several facets which are empirically unrelated should not necessarily have high internal consistency, as noted by Cronbach and Meehl (1955)[3]. Several of the composites used in Phase I fit the latter description, and, accordingly, should not be expected to have high internal consistency.

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[3]Cronbach, L. J., & Meehl, P. E. Construct validity in psychological tests. Psychological Bulletin, 1955, 52, 281-302.

Appendix A: Item Pool Selected

File C: School as Case		Files F,G: Unit Teacher as case
CV135A	CV21028	zV24040
CV135D1	CV21029	zV24042
CV135D2	CV21030	zV24043
CV135D3	CV21033	zV24044
CV135D4	CV21034	zV24045
	CV21035	zV24046
	CV21036	zV24047
	CV21037	zV24048
	CV21038	zV24080
	CV21039	zV24082
	CV21040	zV24083
	CV21041	zV24084
		zV24085
		zV24086
		zV24087
		zV24088
		zV24120
		zV24122
		zV24123
		zV24124
		zV24125
		zV24126
		zV24127
		zV24128

File C: School as Case

For which curriculum areas has your school adopted a set of school-wide specific instructional objectives? (Specific instructional objectives may be attained in a two to four week instructional period.) Please mark (0) *No* or (1) *Yes* for each curriculum area, questions 28 - 32.

CV21028 28 *Reading*

CV21029 29 *Language arts*

CV21030 30 *Mathematics*

How were the specific instructional objectives identified? For each curriculum area marked (1) *Yes* above, indicate how the various sources below were used.

Reading objectives

CV21033 33 Taken from published curriculum(s)

(0) Directly
(1) With adaptation
(2) Not at all

CV21034 34 Taken from objectives book(s) or catalog(s)

(0) Directly
(1) With adaptation
(2) Not at all

CV21035 35 Developed locally by staff; not adaptations

(0) Entirely
(1) In part
(2) Not at all

Language arts objectives

CV21036 36 Taken from published curriculum(s)

(0) Directly
(1) With adaptation
(2) Not at all

CV21037 37 Taken from objectives book(s) or catalog(s)

(0) Directly
(1) With adaptation
(2) Not at all

CV21038 38 Developed locally by staff; not adaptations

(0) Entirely
(1) In part
(2) Not at all

Mathematics objectives

CV21039 39 Taken from published curriculum(s)

(0) Directly
(1) With adaptation
(2) Not at all

CV21040 40 Taken from objectives book(s) or catalog(s)

(0) Directly
(1) With adaptation
(2) Not at all

CV21040 41 Developed locally by staff; not adaptations

(0) Entirely
(1) In part
(2) Not at all

Check any of the following R&D Center curriculum products being used in your school and the units or grades of use: units/grades

CV135A — A Developing Mathematical Processes (DMP)

CV135D1 D1 Word Attack
CV135D2 D2 Study Skills
CV135D3 D3 Comprehension
CV135D4 D4 Self-Directed, Interpretive, and Creative Reading

Files F,G: Unit Teacher as Case

Listed below are six types of *reading-writing* materials:

Single textbook
Multitexts
Programmed materials
Workbooks
Computer terminal
Materials written by learners

zV24040 zV24080 zV24120 R40 M80 L120 How many of these types of materials are used in this curriculum area?

(0) None of the above types of reading-writing materials is used
(1) One type is used
(2) Two types are used
(3) Three types are used
(4) Four types are used
(5) Five types are used
(6) All six types of reading-writing materials are used

Note: Do not mark in rows 41, 81, *and* 121.

Listed below are seven types of *audio-visual* materials:

Films
Filmstrips
Tapes
Records
Television
Overhead projectors
Videotapes

zV24042 zV24082 zV24122 R42 M82 L122 How many of these types of materials are used in this curriculum area?

(0) None of the above types of audio-visual materials is used
(1) One type is used
(2) Two types are used
(3) Three types are used
(4) Four tupes are used
(5) Five types are used
(6) Six types are used
(7) All seven types of audio-visual materials are used

Listed below are four types of *manipulative* materials:

Building tools
Games
2-dimensional materials
3-dimensional materials

zV24043
zV24083 R43 M83 L123 How many of these types of materials are
zV24123 used in this curriculum area?

(0) None of the above types of manipulative materials is used
(1) One type is used
(2) Two types are used
(3) Three types are used
(4) All four types are used

Listed below are three types of media situations:

Discussions
Lectures
Learner's mediations (thinking alone without books, etc.)

zV24044
zV24084 R44 M84 L124 How many of the above types of no media situations
zV24124 are used in this curriculum area?

(0) None of the above types of manipulative materials is used
(1) One type is used
(2) Two types are used
(3) Three types are used

About what percentage of the learner's instructional time in this area is spent using the types of materials/media below?

Mark the answer sheet according to the following code; the individual percents for the four kinds of materials/media should add up to 100%.

	(0) 0-9%	(5)	50-59%
	(1) 10-19%	(6)	60-69%
	(2) 20-29%	(7)	70-79%
	(3) 30-39%	(8)	80-89%
zV24045	(4) 40-49%	(9)	90-100%

zV24046
zV24047
zV24048
zV24085
zV24086
zV24087
zV24088
zV24125
zV24126
zV24127
zV24128

Use the space below to work out the percents. Then transfer to the answer sheet using the code.

	Reading	Math	Lang. Arts	
R45 M85 L125 Reading-writing materials	_____	_____	_____	%
R46 M86 L126 Audio-visual materials	_____	_____	_____	%
R47 M87 L127 Manipulative materials	_____	_____	_____	%
R48 M88 L128 No materials/media situations	_____	_____	_____	%
	100%	100%	100%	

Note: These variables, zV24045 to zV24128 were changed into variables zX24045 to zX24128. This change took place because in many instances the set of items that were to add to 100% did not. The items were fixed so that they now add to 100%.

Appendix B: SPSS Commands for UCR

Use of IPM--Compatible Materials and Media: Components for Math and Reading-Language Arts

Operations to do in file FTEACH2 and GTEACH5
(Letting z=F in file FTEACH2 and z=G in file GTEACH5

```
COMMENT          MATH INSTRUCTIONAL PRACTICES
COMPUTE          zUCRM201 = zV24080
COMPUTE          zUCRM202 = zV24082
COMPUTE          zUCRM203 = zV24083
COMPUTE          zUCRM204 = zV24084

COMMENT          READING INSTRUCTIONAL PRACTICES
COMPUTE          zUCRR201 = zV24040
COMPUTE          zUCRR202 = zV24042
COMPUTE          zUCRR203 = zV24043
COMPUTE          zUCRR204 = zV24044

COMMENT          LANGUAGE ARTS INSTRUCTIONAL PRACTICES
COMPUTE          zUCRL201 = zV24120
COMPUTE          zUCRL202 = zV24122
COMPUTE          zUCRL203 = zV24123
COMPUTE          zUCRL204 = zV24124

RECODE           zUCRM201 TO zUCRL204 (3 THRU HIGHEST = 3)

COMPUTE          zUCRM2 = (zX24085 * zUCRM201) + (zX24086 * zUCRM202) +
                          (zX 4087 * zUCRM203) + (zX24088 * zUCRM204)

VAR LABELS       zUCRM2, MATH MATERIALS & MEDIA X % TIME

COMPUTE          zUCRR2 = (zX24045 * zUCRR201) + (zX24046 * zUCRR202) +
                          (zX24047 * zUCRR203) + (zX24048 * zUCRR204)

VAR LABELS       zUCRR2, READING MATERIALS & MEDIA X % TIME

COMPUTE          zUCRL2 = (zX24125 * zUCRL201) + (zX24126 * zUCRL202) +
                          (zX24127 * zUCRL203) + (zX24128 * zUCRL204)

VAR LABELS       zUCRL2, LANGUAGE ARTS MATERIALS & MEDIA X TIME
PRINT FORMATS    zUCRM2, zUCRR2, zUCRL2 (3)

ASSIGN MISSING   zUCRM201 TO zUCRL2 (-99)
```

Operations to do in files AUNIT2 and BUNIT5, merging selected variables from file CSCHOOL
(Letting z=A and n=2 in file AUNIT2 and z=B and n=5 in file BUNIT5)

```
GET ARCHIVE       FILE = zUNITn VARIABLES = ALL/
                  FILE = CSCHOOL VARIABLES = CV135A, CV135D1, CV135D2,
                  CV135D3, CV135D4, CV21028 TO CV21030, CV21033 TO
                  CV21041/

ADD VARIABLES     zUCRM2, zUCRR2, zUCRL2

VAR LABELS        zUCRM2, MEAN OF UNIT TEACHERS ON UCRM2/
                  zUCRR2, MEAN OF UNIT TEACHERS ON UCRR2/
                  zUCRL2, MEAN OF UNIT TEACHERS ON UCRL2/

MISSING VALUES    zUCRM2 TO zUCRL2 (-99)
COMMENT

COMPUTE           zUCRM1 = 0
IF                ((CV21030 EQ 1) AND (CV135A EQ 0)) zUCRM1 = 1
IF                ((1 EQ CV21030 AND CV21039 AND CV21040 AND CV21041)
                    AND (CV135A EQ 0)) zUCRM1 = 2
IF                ((1 EQ CV21030 AND CV135A) AND (CV21039 EQ 0))
                    zUCRM1 = 2
IF                (1 EQ CV21030 AND CV135A AND CV21039) zUCRM1 = 3
VAR LABELS        zUCRM1, PART1 OF UCRMATH:  SET INSTRUC OBJECTIVES
VALUE LABELS      zUCRML (0) LOWEST RATING (3) HIGHEST RATING
COMPUTE           zUCRMATH = (10 * zUCRM1 + zUCRM2)
ASSIGN MISSING    zUCRMATH (-99)

COMPUTE           zUCRR101 = 0
IF                (CV135D1 EQ 1) zUCRR101 = 1
IF                ((CV135D1 EQ 1) AND
                  (1 EQ CV135D2 OR CV135D3 OR CV135D4)) zUCRR101 = 2
IF                ((zGRADE EQ 5) AND (CV135D1 NE1) AND
                    (1 EQ CV135D2 OR CV135D3 OR CV135D4)) zUCRR101 = 1
VAR LABELS        zUCRR101, CURRIC. PROD. PART OF zUCRR1
VALUE LABELS      zUCRR101 (0) LOWEST RATING (2) HIGHEST RATING
COMMENT
COMPUTE           zUCRR102 = CV21033
RECODE            zUCRR102 (0,2 = 0) (1 = 1)

COMPUTE           zUCRR1 = 0
IF                ((zUCRR101 EQ 0) AND (CV21028 EQ 1)) zUCRR1 = 1
IF                ((zUCRR101 EQ 0) AND
                    (1 EQ CV21028 AND CV21033 AND CV21034 AND CV21035)) zUCRR1 = 2
IF                ((zUCRR101 EQ 1 OR 2) AND (CV21028 EQ 1))
                    zUCRR1 = zUCRR101 + CV21028 + zUCRR102
COMPUTE           zUCRR1 = (3/4) * zUCRR1
```

```
VAR LABELS        zUCRR1, PART1A OF zUCRREAD:SET OBJ IN READING
VALUE LABELS      zUCRR1 (0) LOWEST RATING (3) HIGHEST SCORE
COMMENT

COMPUTE           zUCRL101 = CV21029
COMPUTE           zUCRL102 = CV21036
COMPUTE           zUCRL103 = CV21037
COMPUTE           zUCRL104 = CV21038
RECODE            zUCRL101 TO zUCRL104 (0,2 = 0) (1 = 1)
COMPUTE           zUCRL1 = zUCRL101 + zUCRL102 + zUCRL103 + zUCRL104
COMPUTE           zUCRL1 = (3/4) * zUCRL1
VAR LABELS        zUCRL1, PART1B OF zUCRREAD: SET OBJ IN LANG ARTS
VALUE LABELS      zUCRL1 (0) LOWEST RATING (3) HIGHEST SCORE
COMMENT

COMPUTE           zUCRR12 = (10 * zUCRR1 + zUCRR2)
ASSIGN MISSING    zUCRR12 (-99)

COMPUTE           zUCRREAD = zUCRR12
IF                ((zGRADE EQ 2) AND (-99 NE zUCRR1 AND zUCRR2
                    AND zUCRL1 AND zUCRL2))
                  zUCRREAD = .667 * (10 * zUCRR1 + zUCRR2) +
                             .33 * (10 * zUCRL1 + zUCRL2)
IF                ((zGRADE EQ 5) AND (-99 NE zUCRR1 AND zUCRR2
                    AND zUCRL1 AND zUCRL2))
                  zUCRREAD = .5 * (10 * zUCRR1 + zUCRR2) +
                             .5 * (10 * zUCRL1 + zUCRL2)
```

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